



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/534,474	03/24/2000	Debra L. Woods	WOO001	3349

7590

01/11/2002

The Law Office of Everett G. Diederiks JR  
12471 Dillingham Square #301  
Woodbridge, VA 22192

EXAMINER

LAO, LUN YI

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 01/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/534,474

Applicant(s)

Woods

Examiner

Lao, Lun-yi

Art Unit

2673



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jan 3, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above, claim(s) 4, 11, and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 7-10, 12, 13, and 15-20 is/are rejected.
- 7) ☒ Claim(s) 3, 5, and 6 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- 18) ☒ Interview Summary (PTO-413) Paper No(s). 10
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7 and 13, 15, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe et al(JP 08249097).

As to claims 7, 13, 15, 16 and 19, Watanabe et al teach a keyboard comprising a plurality of keys arranged in an array on an upper side of a base(see figures 1 and 3). The keys includes letter keys, a tab key(TA), a backspace key(BS), shift keys(SH or cursor shift keys) adjacent to each other arranged into two rows and a function key(23, 24), wherein both tab(TA) and backspace keys(BS) are centrally located within the letter keys and above the home row(see figures 1, 3 and constitution).

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Watanabe et al(JP 08249097) in view of Montgomery(4,211,497).

As to claims 7-10 and 12, Watanabe et al teach a keyboard comprising a plurality of keys arranged in an array on an upper side of a base(see figure 1). The keys includes letter keys, a tab key(TA), a backspace key(BS), a shift key(SH) and a function key(23, 24), wherein both tab(TA) and backspace keys(BS) are centrally located within the letter keys and above the home row(see figures 1, 3 and constitution).

Watanabe et al fail to disclose a tab key is located on the same row of the backspace key.

At to claims 8-9 and 11-12, Chen teaches a keyboard comprising a tap key(15) same row to a backspace key(16)(see figures 1, 4 and column 2, lines 39-49). It would have been obvious to have modified Watanabe et al with the teaching of Chen, since the function of a key would not be effected by moving a backspace key down one row and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

As to claim 9, Watanabe et al teach a tab key(TA) is on the left of the backspace key(BS)(see figure 1).

5. Claim 13, 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (JP 08249097) in view of Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition).

See the discussion of Watanabe et al on paragraph #3 above. Watanabe et al teach a keyboard having two shift keys(SH) and two ALT keys adjacent one another are operated by thumbs of a user(see figure 1 and constitution).

Watanabe et al fail to disclose three shift keys arranged in two rows.

Harada et al teach shift keys and alternate keys arranged in two rows(see figure 3). It

would have been obvious to rearranged shift keys and alternate keys adjacent to each other in one row into two rows, since the function of a key would not be effected, those keys still could be operated by thumbs of a user and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

It would have been obvious to replace ALT keys by shift keys since they both having same function(they both used in combination of another key to produce some special feature or function)(see Microsoft Press Computer Dictionary(Third Edition) pages 21, 22 and 433).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (JP 08249097) in view of Harada et al(6,107,994), Microsoft Press Computer Dictionary(Third Edition) and Nakabayashi et al(5,600,827).

Watanabe et al teach a cursor key adjacent to a shift key(see figure 3). Watanabe et al modified fail to point out a cursor key as a scroll key.

Nakabayashi et al teach a cursor key for performing a scrolling function when a cursor key is operated with a SHIFT key(see column 16, lines 1-3). It would have been obvious to have modified Watanabe et al as modified with the teaching of Nakabayashi et al, so a cursor key could have dual functions.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (JP 08249097) in view of Harada et al(6,107,994), Microsoft Press Computer Dictionary(Third Edition) and Maynard et al(5,557,299).

Watanabe et al as modified fail to disclose shift keys are color coded.

Maynard et al teach a keyboard having a color code(Green, Red, Blue, Yellow)(see figure 5; column 5, lines 57-68 and column 6, lines 1-36). It would have been obvious to have modified Watanabe et al as modified with the teaching of Maynard et al, so a user can first easily locate the

type of key by its color(see column 5, lines 65-68 and column 6, line 1).

8. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable Watanabe et al (JP 08249097) in view of Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition) and Montgomery(4,211,497).

See the discussion of Watanabe et al (JP 08249097), Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition) on paragraph #5 above.

Watanabe et al fail to disclose at least three multi-letter words would be come out when read one of rows of selected letter keys from left to right.

Montgomery teaches a keyboard having two multi-letter words( I T H E R) came out when read one of rows of selected letter keys from left to right(see figure 12). It would have been obvious to have modified Watanabe et al as modified with the teaching of Montgomery, so as to increase the speed of typing common words(see Montgomery's column 2, lines 60-61) and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

It would have been obvious to put three sequential common words in one row since there would be more convenience for a user to locate those common words; e.g. I T H E R O F; so as to increase typing speed and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Klauber(5,620,267) in view of Montgomery(4,211,497).

Klauber teaches a keyboard comprising a plurality of keys arranged in an array on an

upper side of a base(see figure 1). The keys includes letter keys, a tab key(TAB), a backspace key, a shift key(shift) and a function key(F1-F12)(see figures 6-7).

Klauber fails to disclose at least three multi-letter words would be come out when read one of rows of selected letter keys from left to right.

Montgomery teaches a keyboard having two multi-letter words( I T H E R) came out when read one of rows of selected letter keys from left to right(see figure 12). It would have been obvious to have modified Klauber as modified with the teaching of Montgomery, so as to increase the speed of typing common words(see Montgomery's column 2, lines 60-61) and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

It would have been obvious to put three sequential common words in one row since there would be more convenience for a user to locate those common words; e.g. ITHEROF; so as to increase typing speed and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

### ***Allowable Subject Matter***

10. Claims 3 and 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. **Applicant's arguments with respect to claims 1, 2, 7-10, 12, 13 and 15-20 have been**

**considered but are moot in view of the new ground(s) of rejection.**

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

January 07, 20002

Lun-yi Lao